

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-145
Relating to Certification of New Motor Vehicles

SANDTANA MINI-MOTORHOMES

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code Sections 43100, 43102, 43103, and 43835; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Orders G-45-3 and G-45-4;

IT IS ORDERED AND RESOLVED: That Sandtana Mini-Motorhomes exhaust emission control systems for 1978 model-year light-duty trucks are certified for the vehicles described below:

Engine Family: 20R (TC)

Engine: 133.6

Transmission: 4-Speed Manual

Exhaust Emission Control Systems: Air Injection, Exhaust Gas Recirculation, Oxidation Catalyst

Models and Engine Codes as listed in attachment.

The following are the recommended values to be listed on the window decal required by California Assembly-Line Test Procedures for 1978 model-year vehicles:

<u>Engine Family</u>	<u>Hydrocarbons Grams per Mile</u>	<u>Carbon Monoxide Grams per Mile</u>	<u>Nitrogen Oxides Grams per Mile</u>
20R (TC)	0.2	9	1.6

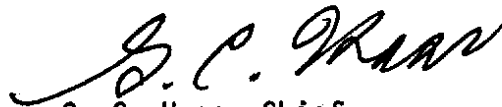
BE IT FURTHER RESOLVED: That the above models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" (13 California Administrative Code, Section 2290) for the aforementioned model year, or have been granted a temporary exemption from the aforementioned "Specifications" by Executive Order AA-145 series.

BE IT FURTHER RESOLVED: That the above models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Gasoline-powered Motor Vehicles except Motorcycles".

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

The Department of Motor Vehicles, the California Highway Patrol, and the Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California, this 3 day of February, 1978.



G. C. Hass, Chief
Vehicle Emissions Control Division

1978 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer Sandtana Mini-Motor Executive Order No. A-145 Page 1
Homes
 Engine Family 20R (TC) Engine (CID) 133.6

ABBREVIATIONS

Distributor

C-Centrifugal Advance

V-Vacuum Advance

VR-Vacuum Retard

HEI-High Energy Ignition

EI-Electronic Ignition

Fuel System

EFI, FI

nV-nVenturi Carburetor

VV-Variable Venturi

Exhaust Emissions Control System

AI-Air Injection

CAI-Catalyst Air Injection

CAB-Chamber Air Bleed

DD-Dual Displacement

EFI-Electronic Fuel Injection

EGR-Exhaust Gas Recirculation

EM-Engine Modification

EFE-Early Fuel Evaporation

ESAC-Electronic Spark Advance Control

FI-Fuel Injection

OC-Oxidation Catalyst

PAI-Pulse Air Injection

RC-Reduction Catalyst

TC-Turbo Charged

TR-Thermal Reactor

TWC-Three Way Catalyst (Feedback Control)

EGR Syst. Service

I-Inspect, repair/replace as needed

R-Replace

Engine

CM-CT

Model

Sandtana

Transmission

4M

1978 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

☐ Passenger Cars ☒ Light-Duty Trucks ☐ Medium Duty Vehicles

Manufacturer Sandtana Mini-Motor Homes Executive Order No. A-145 Page 2

Engine Family 20R (TC)(Toyota) Engine (CID) 133.6 Engine Code

Emission Control System AI, EGR, OC +10%(A/C) Yes ☐ No ☒

Eng. Code	Vehicle Models (If Coded see attachment)	Trans	Inertia Weight Class	Distributor Type	Fuel System Type	EGR System	Tune-Up Specification
				Mfgr. Part Number	Mfgr. Part Number	Part No. Service	(1) Basic Timing (2) Idle Mixture (3) Idle Speed
CM-CT	Sandtana	4M	4000	19100-38060	21100-38161	25620-38121	(1) 8° BTDC @ Idle. (2) Lean drop idle. (3) 800 RPM. <u>Lean Drop Method</u> Set to the following value at best idle 870M, 920A, RPM turn idle mixture adjusting screw until 800M 850A

Comments: Yes models have special road load HP settings. 24 H.P.
See page 1 for abbreviations and model codes.

Date of Issue 1/23/78 Revisions:

1978 MODEL-YEAR CERTIFICATION APPLICATION CHECK OFF SHEET

INCOMPLETE OR MODIFIED VEHICLES

☐ PASSENGER CARS☒ LIGHT-DUTY TRUCKS☐ MEDIUM-DUTY VEHICLESManufacturer Sandstone Mini-MotorhomesPrimary Vehicle Manufacturer: Toyota

1. Application Submitted:
 a. Date Received 16 Jan 78
 b. Date ARB Response _____
2. Authorized Signature AB
3. Vehicle Description AB
4. California Sales AB
5. Modification to Emission Control System:
 a. Engine Yes _____ No ✓
 b. Evaporative Yes _____ No ✓
 c. Fuel Tanks Yes _____ No ✓
6. Vehicle Parameters:
 a. Frontal area 41.4 ft.
 b. Actual R.L. HP 24 HP
 c. Inertia Weight 4000 lbs.
 d. Curb Weight 3697 lbs.
7. Test vehicle required Yes _____ No X
8. Fill pipe Specification Compliance AB
9. Test Vehicle Data. AB
10. Confirm Test Lab. AB
11. Warranty Statements 50,000 miles or 5 years AB
12. Statement that test and production vehicles are identical. _____
13. Evaporative system evaluated:
 a. Aux. fuel tanks None
 b. Modifications to O.E.M. NO
14. E.O. number primary vehicle. A-14

Engine Family Toyota 20RTCExhaust Emission Control System** AI EBRAC
 Projected Exhaust Emissions at 50,000 Miles (grams/miles)***

Engine Size (CID)	Trans.	Inertia Weight Class	Calibration	Vehicle I.D. Number	HC 0.41(0.9)*	CO 9.0(17)*	NO _x 1.5(2.0)*
106.6	4M	4000	CM-ET	107060	0.2	4	1.7

***Includes a MCCF value of 1.000 and D.F. values of 1.000 1.000 1.000.
 *Numbers in Parenthesis refer to light-duty trucks and medium-duty vehicles except NO_x is 2.3 for medium-duty vehicles.

Executive Order No. A- 145

Application Processed by Al Smythe Jan 30, 78 Date Reviewed by Robert P. Weiss 1/31/78 Date

**Abbreviations

Exhaust Emission Control System

AI - Air Injection
 CAI - Catalyst Air Injection
 CAB - Chamber Air Bleed
 DD - Dual Displacement
 EFE - Early Fuel Evaporation
 EFI - Electronic Fuel Injection
 EGR - Exhaust Gas Recirculation
 EM - Engine Modifications

ESAC - Electronic Spark Advance Control
 FI - Fuel Injection
 OC - Oxidation Catalyst
 PAI - Pulse Air Injection
 RC - Reduction Catalyst
 TC - Turbocharged
 TR - Thermal Reactor
 TWC - Three Way Catalyst (Feedback Control)